We claim:

1. A method for detecting the presence of cancer in a test subject, comprising determining the concentration of a lysophospholipid in a sample of bodily fluid taken from said test subject and comparing the concentration of lysophospholipid to the concentration of the lysophospholipid in samples from normal subjects lacking cancer, whereby an increase in the concentration of lysophospholipid in the sample from said test subject relative to the concentration of the lysophospholipid in samples from normal subjects indicates the presence of cancer.

2. The method of claim 1 further comprising the step of determining the concentration of at least one other type of lysophospholipid in the samples.

3. The method of claim 1 further comprising the step of determining the concentration of subtypes of the lysophospholipid in the samples.

4. The method of claim 3 wherein said method further comprises the step of measuring the concentrations of palmitoyl-X, stearoyl-X, oleoyl-X and linoleoyl-X in the sample from the test subject, where X is selected from the group consisting of LysoPC, LysoPA, LysoPS, LysoPI, LysoPE and LysoPG lysophospholipids, and comparing said concentrations to control concentrations.

5. The method of claim 4 further comprising determining the molar ratio of palmitoyl-X to linoleoyl-X in the sample and comparing said ratio to control ratios.

6. The method of claim 4 further comprising determining the value of [X/PC]x[palmitoyl-X/linoleoyl-X] in the sample from the test subject and comparing said value to control values.

7. The method of claim 1 further comprising the step of determining the concentration of additional cancer cell markers in the sample from the test subject.

8. The method of claim 7 wherein said additional cancer cell markers are selected from the group consisting of CA125, Tac, soluble IL2 receptor alpha, mCSF, OVX1, CEA, PSA, CA15-3 and CA19.9.

9. The method of claim 1 wherein said cancer is a gynecological cancer selected from the group consisting of ovarian, fallopian tube, uterine, intraperitoneal carcinomatosis and cervical cancers.

10. The method of claim 1 wherein said step of determining the concentration of lysophospholipid comprises contacting said sample with an anti-lysophospholipid antibody to bind with lysophospholipid and detecting said bound antibody.

11. The method of claim 1 further comprising the step of determining the fatty acid composition of said lysophospholipid and the concentration of said fatty acids of the lysophospholipid in the samples.

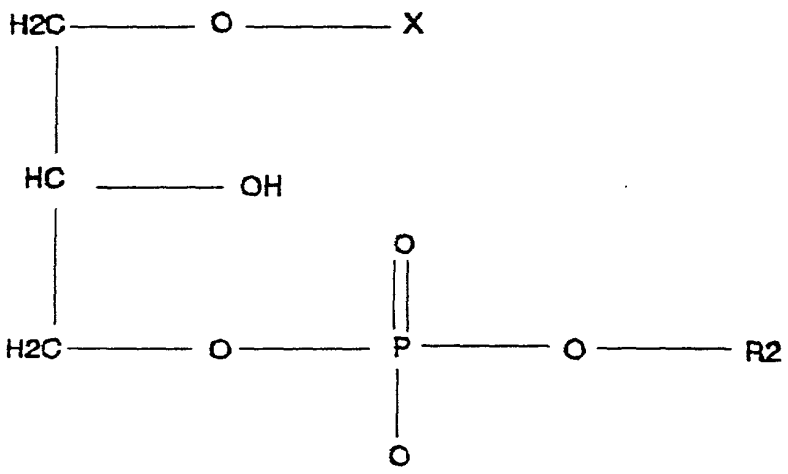
12. The method of claim 1 wherein said lysophospholipid ~~is~~ a sn-1 or sn-2 lysophospholipid having a glycerol backbone with a phosphate or derivatized phosphate at the sn-3 position and having a single fatty acid chain located at the sn-1 or sn-2 position linked by an acyl linkage and having a hydroxyl located at the other sn-1 or sn-2 position.

13. The method of claim 1 wherein said lysophospholipid is a sn-1 lysophospholipid having a glycerol backbone with a phosphate or derivatized phosphate at the sn-3 position and having a long chain alcohol located at the sn-1 position

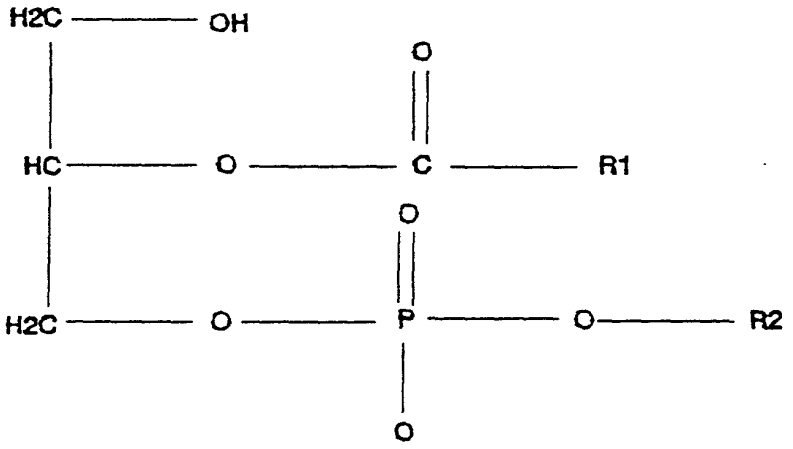
linked by an alkyl or alkenyl linkage and having a hydroxyl located at the sn-2 position.

14. The method of claim 12 or 13 wherein said lysophospholipid has the general structure of:

sn-1 lysophospholipid



sn-2 lysophospholipid



wherein X is a single chain fatty acid or long chain alcohol, and R1 is a single chain fatty acid and wherein R2 is a derivatized phosphate.

15. The method of claim 14 wherein X is selected from the group consisting of 18:0, 16:0, 18:1, 18:2, 20:4n-6, 22:6n-3.

16. The method of claim 14 wherein R1 is selected from the group consisting of palmitic, palmitoleic, stearic, oleic, linoleic, arachidonic and docasahexanoic fatty acids.

17. The method of claim 14 where R2 is selected from the group consisting of hydrogen, choline, inositol, ethanolamine, glycerol and serine.

18. The method of claim 1 wherein said lysophospholipid is selected from the group consisting of LysoPC, LysoPA, LysoPS, LysoPE, LysoPI, and LysoPG lysophospholipids.

19. The method of claim 1 further comprising the step of determining the concentration of lysophospholipids having a particular degree of saturated or unsaturated fatty acids and/or fatty acid chain length.

20. The method of claim 1 further comprising the step of determining the concentration of lysophospholipids having a particular long chain alcohol.

21. The method of claim 1 wherein said sample is selected from the group consisting of plasma, serum, urine, saliva, ascites, cerebral spinal fluid and pleural fluid.

22. A method for detecting the presence of cancer in a sample of bodily fluid taken from a test subject, comprising the steps of:

(a) determining the concentration of a lysophospholipid in a sample of bodily fluid from said test subject;

(b) determining the concentration of the fatty acids of said lysophospholipid in the sample from said test subject; and

(c) comparing the values obtained in step a and b with values obtained from controls.

23. The method of claim 22 wherein said concentrations are normalized to the concentration of a compound selected from the group of other lysophospholipids, phospholipids, albumen and creatinine.

24. The method of claim 22 wherein said lysophospholipid is selected from the group consisting of LysoPC, LysoPA, LysoPS, LysoPE, LysoPI and LysoPG lysophospholipids.

25. The method of claim 22 where said cancer is a gynecological cancer.

26. The method of claim 1 or 22 wherein said concentration of lysophopholipid is taken at successive time intervals to establish a rate of change over time for the concentration of the lysophospholipid.

27. A method for monitoring the presence of cancer in a test subject over time, comprising:

a) determining the concentration of a lysophospholipid in a sample of bodily fluid taken from said test subject at a first time;

b) determining the concentration of the lysophospholipid in a sample of bodily fluid taken from the test subject at a later time; and

c) comparing the concentrations obtained in step a and b to determine whether there has been an increase or decrease in the concentration of the lysophospholipid in the sample

taken from said test subject at the later time relative to the concentration of the lysophospholipid in a sample taken from the test subject at said first time,

whereby an increase in the concentration of the lysophospholipid in the sample from said later time indicates an increase in the number of viable tumor cells and a decrease indicates a decrease in the number of viable tumor cells.

28. The method of claim 27 wherein said tumor is a gynecological cancer selected from the group consisting of ovarian, fallopian tube, uterine, intraperitoneal carcinomatosis and cervical cancers.

29. The method of claim 27 wherein said step of determining the concentration of lysophospholipid comprises contacting said sample with an anti-lysophospholipid antibody.

30. The method of claim 27 further comprising the step of determining the fatty acid composition of said lysophospholipid and the concentration of said fatty acids of the lysophospholipid in the samples.

31. The method of claim 27 further comprising the step of determining the concentration of lysophospholipids having a particular long chain alcohol.

32. The method of claim 27 wherein said lysophospholipid is a sn-1 or sn-2 lysophospholipid having a glycerol backbone with a phosphate or derivatized phosphate at the sn-3 position and having a single fatty acid chain located at the sn-1 or sn-2 position linked by an acyl linkage and having a hydroxyl located at the other sn-1 or sn-2 position.

33. The method of claim 27 wherein said lysophospholipid is a sn-1 lysophospholipid having a glycerol backbone with a phosphate or derivatized phosphate at the sn-3 position and having a long chain alcohol located at the sn-1 position linked by an alkyl or alkenyl linkage and having a hydroxyl located at the sn-2 position.

34. The method of claim 27 wherein said lysophospholipid is selected from the group consisting of LysoPC, LysoPA, and LysoPS, LysoPE, LysoPI, and LysoPG lysophospholipids.

35. A diagnostic kit for detecting the concentration of lysophospholipids in a sample of bodily fluid taken from a test subject to detect cancer, said kit comprising reagents for measuring the concentrations of lysophospholipids in a sample of bodily fluid taken from a test subject.

36. The diagnostic kit of claim 35 wherein said reagents include an anti-lysophospholipid antibody.

37. The diagnostic kit of claim 35 further comprising a reagent for inhibiting production or hydrolysis of lysophospholipid in the sample during transport or storage.